

L 2090-66

ACCESSION NR: AP5025260

3

possible to reduce the multiply reflected beam into one coinciding with the primary beam and to thus obtain a four-fold enhancement in the intensity of the scattered light. Also, the power output of the laser increased slightly. The linearly polarized E vector from the laser was perpendicular to the scattering plane and was directed parallel to one of the edges of the crystal lattice. The quality of the spectrograms obtained using laser excitation was limited only by the degree of the perfection of the crystal. The sound velocities obtained by measuring the shift of the Rayleigh satellites ( $\Delta\lambda$ ) are summarized in Table 1 of the Enclosure together with the sound velocities calculated from data on the elastic constants of the crystals. Orig. art. has: [CS] 2 figures and 1 table.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University) 44/55

SUBMITTED: 22Jun65

ENCL: 01

SUB CODE: SS, EC

NO REF Sov: 000

OTHER: 008

ATD PRESS: 4117

Card 2/3

L 2090-66  
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ENCLOSURE: 01

Table 1. Satellite displacement  $\Delta\lambda$  and sound velocity  $V_s$  data

| Crystal                            | Longitudinal wave   |                      |                        | Transverse wave     |                      |                        |
|------------------------------------|---------------------|----------------------|------------------------|---------------------|----------------------|------------------------|
|                                    | $\Delta\lambda$ , Å | $V_{exp}$<br>(m/sec) | $V_{theor}$<br>(m/sec) | $\Delta\lambda$ , Å | $V_{exp}$<br>(m/sec) | $V_{theor}$<br>(m/sec) |
| $\text{NH}_4\text{Cl} + \text{Cs}$ | $0.228 \pm 0.001$   | $4650 \pm 25$        | 4430                   | $0.117 \pm 0.001$   | $2380 \pm 25$        | 2110                   |
| $\text{NaCl}$                      | $0.204 \pm 0.002$   | $4450 \pm 50$        | 4480                   |                     |                      |                        |
| $\text{KCl}$                       | $0.169 \pm 0.003$   | $3820 \pm 70$        | 3830                   |                     |                      |                        |

Card 3/3

GRABOVSKIY, Mikhail Aleksandrovich, dots.; MLODZEYEVSKIY, Anatoliy Boleslavovich, prof.; TELESNIN, Roman Vladimirovich, prof.; SHASKOL'SKAYA, Marianna Petrovna, dots.; YAKOVLEV, Ivan Alekseyevich, prof.; IVERONOVA, V.I., red.; CHEBOTAREVA, A.V., red.

[Lecture demonstrations in physics] Lektsionnye demonstratsii po fizike. Moskva, Nauka, 1965. 572 p.

(MIRA 18:9)

1. Institut stali i splavov. Moskva (for Shaskol'skaya).

VELICHKINA, T.S.; SHUSTIN, O.A.; YAKOVLEV, I.A.

Fine structure of the spectral lines of light scattered in cubic  
crystals. Pis'm. v red. Zhur.eksper. i teor.fiz. 2 no.4:189-192  
Ag '65. (MIRA 18+10)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Iomonosova.

KHAYKIN, Semen Emmanuilovich; YAKOVLEV, I.A., prof., retsenzent;  
BURLYAND, V.A., red.

[Electromagnetic oscillations and waves] Elektromagnit-  
nye kolebaniia i volny. Izd.2., dop. i perer. Moskva,  
Energiia, 1964. 207 p. (Massovaia radiobiblioteka,  
no.562 p. (MIRA 19:1)

L 34487-66 PBD/EWT(1)/EEG(k)-2/I/EWP(k) IJP(c) RU  
ACC NR: AF6014164

SOURCE CODE: UR/0053/66/088/004/0753/0756

55  
B

AUTHOR: Velichkina, T. S.; Shustin, O. A.; Yakovlev, I. A.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Gas laser - lecture demonstrations of its operation and use in physical laboratory practice

SOURCE: Uspekhi fizicheskikh nauk, v. 88, no. 4, 1966, 753-756

TOPIC TAGS: gas laser, laser application, education

ABSTRACT: The authors indicate that a simple gas laser can be used as an effective teaching aid and describe several lecture demonstrations that illustrate the operating principle of the laser and its features as a light source. A gas laser is shown to be preferable to a solid-state laser since it demonstrates more clearly the laser principle and is also safer for use in a classroom. Experiments aimed at demonstrating the difference between a laser and an ordinary gas discharge, the polarization of the laser emission, the natural directivity of the laser beam, and its spectral composition are briefly described. A simple interference experiment to prove the narrowness of the laser line width is described. Besides demonstrating the laser operating principle, a gas laser can be used to study the fine structure of spectral lines of light scattered by liquids and crystals (stimulated Mandel'shtam-Brillouin scattering). The end results of such an experiment is calculation of the

UDC: 535.0

Card 1/2

L 34437-66

ACC NR: AP6014164

speed of sound in different media at a frequency of  $\sim 10^{10}$  cps from the interference spectrograms obtained with the aid of a gas laser. This particular demonstration is based on a spectral experiment described by the authors earlier (Pis'ma v redaktsiyu ZhETF v. 2(4), 189, 1965). Some technical data on the laser employed are presented. Orig. art. has: 2 figures and 1 table.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 002/ OTH REF: 003

Card 2/2 92

ACC NR: AP7003531

SOURCE CODE: UR/0386/67/005/001/0006/0009

AUTHOR: Shustin, O. A.; Yakovlev, I. A.; Velichkina, T. S.

ORG: Physics Department, Moscow State University im. M. V. Lomonosov (Fizicheskiy fakul'tet Moskovskogo Gosudarstvennogo Universiteta)

TITLE: Absorption of sound in single-crystal NH<sub>4</sub>Cl during its phase transformation

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniya, v. 5, no. 1, 1967, 6-9

TOPIC TAGS: ammonium compound, chloride, phase transition, Curie point, sound absorption

ABSTRACT: The authors measured the absorption of longitudinal acoustic waves propagating along the edge of the crystal cubic lattice. The measurements were made at 5 and 15 MHz by a method described earlier (ZhETF v. 32, 935, 1957). Particular attention was paid to the thermal conditions of the experiments. The investigated crystal samples were in acoustic contact with a metallic thermostat-controlled delay line. This entire system was placed in turn in a massive copper thermostat isothermal with the delay line. Similar results were obtained for the absorption coefficient at both frequencies, but at 5 MHz the maximum absorption was one-fourth that for 15 MHz. Reduction of the experimental data yields a relaxation time  $\tau = 1 \times 10^{-9}/(\theta - T)$  sec, which agrees in order of magnitude with the value obtained by others. The authors were also able to obtain for the first time the value of  $d\theta/dp$  ( $\theta$  = phase transition

Card. 1/2

ACC NR: AP7003531

temperature, p = pressure) from acoustic measurements, getting a value  $9 \times 10^{-9}$  deg-cm<sup>2</sup>/dyne which agrees with the published data. This is regarded as a confirmation of Landau's theory. The authors thank L. A. Shcherbakova and G. K. Chirkin for supplying the NH<sub>4</sub>Cl crystals. Orig. art. has: 2 figures and 2 formulas.

SUB CODE: 20/ SUBM DATE: 28Sep66/ ORIG REF: 004/ OTH REF: 005

Card 2/2

YAKOVLEV, I.B.

Konstruktsiia aviadizelia JUMO-207-A. Pod redaktsiei A.I. Tolstova. Moskva,  
Oborongiz, 1944. 64 p., illus. (TSIAM. Trudy, no. 64)

Title tr.: Design of the (Junkers) JUMO 207-A aircraft diesel engine.

NCF

So: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress,  
1955.

YAKOVLEV, Ivan Dmitriyevich

YAKOVLEV, Ivan Dmitriyevich; GREBTSOV, P., red.; ZUBRILINA, Z.P., tekhn.red.

[The country's second granary] Vtoraia zhitnitsa strany.  
Moskva, Gos.izd-vo sel'khoz.lit-ry, 1957. 87 p. (MIRA 11:1)  
(Kazakhstan--Grain)

YAKOVLEV, I. F.

"Studying the Heats of Solution of Salts in Water and the Heat Capacity of Solutions Thus Formed at  $-2$  and  $-6$  Degrees Centigrade." Cand. Chem. Sci., Leningrad Technological Inst, Chair of Physical Chemistry, Leningrad, 1954. (KL, No 2, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (13)  
SO: Sum. No. 598, 29 Jul 55

YAKOVLEV, I. F.

MISCHENKO, K.P.; YAKOVLEV, I.F.

Simple calorimetric apparatus for determining the heat capacity of  
of solutions and the heat of solution at low temperatures. Zhur.prikl.  
khim. 30 no.3:478-482 Mr '57. (MLRA 10:5)  
(Calorimeter) (Heat of solution)

ZUY, V.V.; IVANYUK, S.S.; YAKOVLEV, I.F.

Effect of aminazine on the anesthetic action of certain drugs.  
(MIRA 12:4)  
Vrach. delo no.1:97 '59.

1. Kafedra farmakologii (zav. - dots. N.P. Skakun) Ternopol'skogo  
instituta.

(CHLORPROMAZINE)  
(ANESTHESIA)

5(4)

AUTHORS: Mishchenko, K. P., Yakovlev, I. F. SOV/79-29-6-1/72

TITLE: Thermochemistry of Electrolyte Solutions (Termokhimiya rastvorov elektrolitov). V. Integral Heats of Solution of NaCl and MgCl<sub>2</sub> · 6H<sub>2</sub>O in Water at +2 and -6° (V. Integral'nyye teploty rastvorenija NaCl i MgCl<sub>2</sub> · 6H<sub>2</sub>O v vode pri temperaturakh +2 i -6°)PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 6, pp 1761-1771  
(USSR)

ABSTRACT: The thermochemical investigations of aqueous solutions of electrolytes in a large number of different concentrations and temperatures is of considerable interest, both with respect to the evolution of the theory of the solutions and for some industrial fields. The polytherms to be obtained of the integral heats of solution, the heat capacities and partial products (molar ratio) of these values make it possible, in connection with other constants, to characterize more thoroughly the nature of the electrolyte solutions and to clarify especially the part the solvent plays in the formation of the solution. In aqueous solutions this part

Card 1/3

Thermochemistry of Electrolyte Solutions.

SOV/79-29-6-1/72

V. Integral Heats of Solution of NaCl and  $MgCl_2 \cdot 6H_2O$  in Water at +2 and -6°

had to become particularly evident at temperatures above and below 0°, since in this case the thermal motion less interferes with the primary water structure. Thus the interactions between the ions and the solvent are becoming manifest in a considerably pronounced way under these conditions. The integral heats of solution of NaCl,  $MgCl_2 \cdot 6H_2O$ , and  $MgCl_2$  were determined at +2 and -6° in a wide concentration range. The corresponding partial enthalpies of water and electrolyte were calculated in the molar ratio under equal conditions. The comparison of the dependences of these properties on concentration and temperature with the data available in publications permitted some conclusions concerning the structure of the concentrated solutions and their change at different temperatures. There are 4 figures, 5 tables, and 16 references, 11 of which are Soviet.

Card 2/3

Thermochemistry of Electrolyte Solutions. SOV/79-29-6-1/72  
V. Integral Heats of Solution of NaCl and MgCl<sub>2</sub> · 6H<sub>2</sub>O in Water at +2 and -6°

ASSOCIATION: Leningradskiy tekhnologicheskiy institut imeni Lensoveta  
(Leningrad, Technological Institute imeni Lensovet)

SUBMITTED: June 9, 1958

Card 3/3

YAKOVLEV, I. G. and CHEBOTAREVICH N. D.

"On the Prevalence of Ornithodoros Mites in Stavropol' Kray."

Tenth Conference on Parasitological Problems and Diseases with Natural Reservoirs, 22-29 October 1959, Vol. II, Publishing House of Academy of Sciences, USSR, Moscow-Leningrad, 1959.

(Stavropol')

YAKOVLEV, I. I.

YAKOVLEV, I. I. Chief Veterinary Inspector, Main Veterinary Administration, Commissariat for Sovkhozes, USSR). On differential diagnosis of infectious anemia and Leptospirosis of horses.

So: Veterinariya; 23; 2-3; February/March 1946; Unclassified.

TABCON

YAKOVLEV, I.I.

Determining the heat consumption and temperature of heat carriers in heating inserted parts of dam- and lock flood-gates using hot oil. Nauch.dokl.vys.shkoly; stroi. no.2: 243-249 '59. (MIRA 13:4)

1. Rekomendovana kafedroy teplosnabzheniya i ventilyatsii Leningradskogo inzhenerno-stroitel'nogo instituta.  
(Sluice gates)

YAKOVLEV, I. I.

YAKOVLEV, I. I.: "Investigation of the thermal aspects of heating certain basic parts of hydraulic structures through working with electrical models". Leningrad, 1955. Min Higher Education USSR. Leningrad Order of Labor Red Banner Construction Engineering Inst, Chair of Physics. (Dissertations for the Degree of Technical Sciences)

SO: Knizhnaya letopis', No. 52, 24 December, 1955. Moscow.

NIKOLAYEV, A. V.; KURNAKOVA, A. G.; YAKOVLEV, I. I.

Study of extraction processes by means of physicochemical analysis. Zhur. neorg. khim. 5 no.8:1832-1839 Ag '60. (MIRA 13:9)  
(Extraction (Chemistry))

YAKOVLEV, I.I.; VAYSMAN, L.E.

Course of labor in women with vascular diseases of the hypotensive type. Akush. i gin. 38 no.5:52-60 S-0 '62.

(MIRA 17:11)

1. Iz akushersko-ginekologicheskoy kafedry (zav. - zasluzhennyy deyatel' nauki RSFSR prof. I.I. Yakovlev) I Leningradskogo meditsinskogo instituta imeni Pavlova.

8/20/62/145/005/013/020  
B106/B144

AUTHORS: Nikolayev, A. V., Corresponding Member AS USSR, and Yakovlev,  
I. I.

TITLE: Study of the system uranyl nitrate - water - nitric acid -  
tributyl phosphate in the demixing region

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 145, no. 5, 1962, 1064-1067

TEXT: The equilibrium tetrahedron in the demixing region of the system  
 $\text{UO}_2(\text{NO}_3)_2$  -  $\text{HNO}_3$  - tributyl phosphate (TBP) -  $\text{H}_2\text{O}$  was constructed by po-  
tentiometric titration of the aqueous and organic phases using NaOH at  
 $22 \pm 1\%$  to discover the general rules governing the extraction equilibria  
(Fig. 1). There are 1 figure and 1 table.

ASSOCIATION: Institut neorganicheskoy khimii Sibirskogo otdeleniya Aka-  
demii nauk SSSR (Institute of Inorganic Chemistry of the  
Siberian Department of the Academy of Sciences USSR)

SUBMITTED: April 14, 1962

~~GARU~~

NIKOLAYEV, A.V.; DYADIN, Yu.A.; YAKOVLEV, I.I.; MIRONOVA, Z.N.

Quinary system  $\text{UO}_2(\text{NO}_3)_2 - (\text{C}_4\text{H}_9)_2\text{PO}(\text{C}_4\text{H}_9\text{O}) - \text{H}_2\text{O} - \text{HNO}_3 - \text{CCl}_4$   
at a constant relation of  $(\text{C}_4\text{H}_9)_2\text{PO}(\text{C}_4\text{H}_9\text{O})$  to  $\text{CCl}_4$  in the  
demixing area. Dokl. AN SSSR 153 no.1:118-121 N 63.  
(MIRA 17:1)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya  
AN SSSR. 2. Chlen-korrespondent AN SSSR (for Nikolayev).

YAKOVLEV, I.I.; OPALOVSKAYA, R.L.

Study of distribution in systems consisting of nitric acid -  
water - tributylphosphate - swelling-cut agents. Izv. Sib. otd.  
AN SSSR no.12:62-68 '62. (MIRA 17:8)

I. Institut neorganicheskoy khimii Sibirskogo otdeleniya  
AN SSSR, Novosibirsk.

KHRYKER, D.M.; FEYGIN, L.A.; YATOVSKY, I.I.

Small-angle X-ray diffractometer with asymmetrical focusing  
monochromator, Kristallografiia 10 no.3:447-449 My-Je '65.  
(MIRA 18:7)

1. Institut kristallografiia AN SSSR i Nauchno-issledovatel'skiy  
institut asbesta, slyudy, asbestotsementnykh izdeliy i proyekti-  
rovaniya stroitel'stva predpriyatij slyudyanoy promyshlennosti.

LEBEDEVA, L.I.; YAKOVLEV, I.I.

Significance of electrophysiological parameters in the evaluation  
of the formation of labor dominant and the use of trigger stim-  
ulation in the study of the pathogenesis of tonic labor. Akush.  
i gin. 40 no.5:3-10 My-Je '64. (MIRA 18:6)

1. Kafedra skusherstva i ginekologii (zav. - prof. I.I.Yakovlev)  
I Leningradskogo meditsinskogo instituta imeni akademika Pavlova.

ANUMLA7, I. 1.

Emergency in obstetrical pathology Moskva, Gos. izd-vo med. lit-ry, 1950. 358 p.

DAFM

1. Obstetrics - Surgery

YAKOVLEV, I.I.

Electric activity of the cerebral cortex and uterus in pregnancy and labor. Akush. gin., Moskva no.5:30-39 Sept-Oct 1951. (CIML 21:2)

1. Professor. 2. Of Sverdlovsk State Medical Institute (Director -- Docent V. S. Serebrennikov) and of Sverdlovsk Scientific-Research Institute for the Care of Mothers and Children (Director -- Prof. I. I. Yakovlev).

YAKOVLEV, I. I., Prof.

Fistula

Genitourinary and genitointestinal fistulas and their therapy. Akush. i gin., No. 3, 1952.

Monthly List of Russian Accessions Library of Congress October 1952 UNCLASSIFIED.

YAKOVLEV, I. I.; LISOVSKAYA, G. M.; SHMINKE, G. A.

Electrical activity of the cerebral cortex and of the uterus in labor  
as an objective index of the efficacy of painless labor. Akush. gin.,  
Moskva no.5:37-45 Sept-Oct 1952. (CLML 23:2)

1. Professor for Yakovlev. 2. Of the Department of Obstetrics and  
Gynecology (Head -- Prof. I. I. Yakovlev (Sverdlovsk Medical Institute  
(Director -- Prof. A. F. Zverev) and of the Biophysical Laboratory,  
Sverdlovsk Scientific-Research Institute for the Care of Mother and  
Child (Director -- R. A. Malysheva).

YAKOVLEV, I.I.

Basic principles of the function of the "parturient" uterus.  
Akush. i gin. 39 no.5:3-8 S-0 '63. (MIRA 17:8)

1. Iz kafedry akusherstva i ginekologii (zav. - zasluzhennyy  
deyatel' nauki prof. I.I. Yakovlev) I Leningradskogo med'-  
tsirskogo instituta imeni Pavlova.

YAKOVLEV, I.I.; NIKOL'SKIY, N.M., personal'nyy pensioner; SIKORSKIY, A.N.

History of veterinary medicine. Veterinariia 40 no.11:  
80-87 N '63. (MIRA 17:9)

1. Chlen Kommunisticheskoy partii Sovetskogo Soyuza (for  
Nikol'skiy).

YAKOVLEV, I.I.

[First aid in obstetrical pathology; selected chapters of clinical  
obstetrics with an exposition of methodology in obstetrical research  
and of main operations and aids; physicians manual] Neotlozhnaya po-  
moschch' pri akusherskoi patologii; izbrannye glavy klinicheskogo  
akushersvta s izlozheniem metodiki akusherskogo issledovaniia i osnov-  
nykh akusherskikh operatsii i posobii; rukovodstvo dlia vrachei.  
Moskva, Medgiz, 1953. 385 p.

(MLRA 7:3)

(Pathology) (Obstetrics)

NOVIKOVA, E.V., dotsent; YAKOVLEV, I.I., professor, zaveduyushchiy.

Cytodiagnosis of cancer of the corpus and cervix uteri and of neoplasms of the ovaries. Akush.i gin. no.2:40-42 Mr-4p '53. (MIRA 6:5)

1. Kafedra akushersatva i ginekologii Sverdlovskogo meditsinskogo instituta i Sverdlovskogo nauchno-issledovatel'skogo instituta okhrany materinstva i mladenchestva. (Uterus--Tumors) (Ovaries--Tumors)

RODIONOVA, Ye.N.; YAKOVLEV, I.I., professor, nauchnyy rukovoditel'.

Application of cutaneo-cranial forceps by the Ivanov method in various types of obstetric complications. Akush. i gin. no.3:37-40 Hy-Je '53.  
(MLRA 6:7)

1. Sverdlovskiy nauchno-issledovatel'skiy institut okhrany materinstva i mladenchesstva.  
(Labor (Obstetrics))

KALINOVA, Z.I.; YAKOVLEV, I.I., professor, zaveduyushchiy; ZVEREV, A.F., professor, direktor; MALYSHEVA, R.A., direktor.

Tsov'ianov method of conducting labor in breech presentations. Akush.i gin. no.4:37-41 J1-Ag '53. (MLRA 6:9)

1. Akushersko-ginekologicheskaya kafedra Sverdlovskogo meditsinskogo instituta (for Yakovlev). 2. Sverdlovskiy nauchno-issledovatel'skiy institut okhrany materinstva i detstva (for Malysheva). 3. Sverdlovskiy meditsinskiy institut (for Zverev). (Labor (Obstetrics))

YAKOVLEV, I.I.; LISOVSKAYA, G.M.; SHMINKE, G.A.

Electrical activity of the cerebral cortex in the psychoprophylactic method of painless labor. Akush.gin. no.1:3-8 Ja-F '54. (MLRA 7:6)

1. Iz akushersko-ginekologicheskoy kafedry Sverdlovskogo meditsinskogo instituta i Sverdlovskogo nauchno-issledovatel'skogo instituta okhrany materinstva i mladenches'tva (Nauchnyy rukovoditel' i zaveduyushchiy kafedroy - professor I.I.Yakovlev).  
(Electroencephalography) (Childbirth--Psychology)

YAKOVLEV, I.I., professor.

Clinical and physiological evaluation of the functional characteristics of the uterus in pregnancy and labor. Sov. med. 19 no.9:12-20 S '55. (MLRA 8:12)

1. Iz akushersko-ginekologicheskoy kafedry (zav.-prof. I.I. Yakovlev) I Leningradskogo meditsinskogo instituta imeni akad. I.P.Pavlova (dir.-dotsent A.I.Ivanov)

(UTERUS, physiology

in pregn. & labor, clin.aspects)

(PREGNANCY, physiology

uterine funct.,clin.aspects)

(LABOR, physiology

uterine funct.,clin.aspects)

YAKOVLEV, I. I.

USSR/Human and Animal Physiology (Normal and Pathological).  
Nerve and Muscle Physiology.

T

Abs Jour: Ref Zhur-Biol., No 17, 1958, 79923.

Author : Yakovlev, I.I.

Inst :

Title : Objective Evaluation of the Functional Condition of  
a Uterus During Pregnancy.

Orig Pub: Akusherstvo i ginekologiya, 1957, No 8-18. <sup>V.33</sup>

Abstract: The contraction of muscle (CM) of the uterus in the first 20 weeks of pregnancy was very rare (one contraction an hour) and weak. In the following 18 weeks, CM became stronger and longer. In the 39th-40th week, they attained an even more regular character, became strong and long. The tonus tension of the uterus (stage of rhythmic

Card : 1/2

from Obstetrical-Gynecol Chair, 1st, Leningrad Med. Inst in Lavor

USSR/Human and Animal Physiology (Normal and Pathological).  
Nerve and Muscle Physiology.

Abs Jour: Ref Zhur-Biol., No 17, 1958, 79923.

activity) grew simultaneously and progressively. In 10-12 minutes after the receipt of caffeine, the rate, strength, and duration of contractions decreased sharply, although the rhythm remained as before. On the basis of studies where bromide was used, the retardation of the functions developed still more sharply; the strength and duration of separate CM decreased almost 2½ times in comparison with the original rate, and the rate did not change. The combined use of caffeine and a bromide impaired the rhythm and decreased the intensity of CM.

Card : 2/2

YAKOVLEV, I.I., prof.

"Obstetrics seminar" by L.S. Persianinov. Reviewed by I.I. Yakovlev.  
Akush. i gin. 34 no.5:122-123 S-0 '58 (MIRA 11:10)  
(OBSTETRICS)

BULAVINTSEVA, A.I., kand. med. nauk; KAZANSKAYA, N.I., kand.med. nauk;  
KASHINSKIY, A.V., kand. med. nauk; LIPMANOVICH, S.G., kand.  
med. nauk; NAREUT, Ye.I., kand. med. nauk; POKROVSKIY, V.A.,  
zssluzhennyy deyatel' nauki RSFSR, prof.; ROMANOVSKIY, R.M.,  
kand. med. nauk; TUMANOVA, Ye.S., prof.; YAKOVLEV, I.I.,  
zasluzhennyy deyatel' nauki RSFSR, prof.; LANKOVITS, A.V., prof.,  
nauchnyy red.; PERSIANINOV, L.S., prof., otv. red.; BEKKER, S.M.,  
prof., red.; BELOSHAPKO, P.A., prof., red. [deceased]; ZHMAKIN,  
K.N., prof., red.; ZHORDANIA, I.F., prof., red.; LEBEDEV, A.A.,  
prof., red.; MANENKOV, P.V., prof., red.; STEPANOV, L.G., kand.  
med. nauk, red.; SYROVATKO, F.A., prof., red.; FIGURNOV, K.M.,  
prof., red.; PORAY-KOSHITS, K.V., red.; LANKOVITS, A.V., red.;  
SENCHILO, K.K., tekhn. red.

[Multivolume manual on obstetrics and gynecology] Mnogotomnoe  
rukovodstvo po akusherstvu i ginekologii. Moskva, Gos.izd-vo  
med. lit-ry. Vol.6. 1961. 679 p. (MIRA 15:4)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for  
Persianinov, Beloshapko, Figurnov).  
(OBSTETRICS--SURGERY) (GYNECOLOGY, OPERATIVE)

YAKOVLEV, I.I.

Substantiation of the procedure of conducting delivery and the  
recommended therapeutic measures for women with labor anomalies.  
Sbor.nauch. trud. Kaf.akush.i gin. 1 IMI no.2:68-95'61  
(MIRA 16:7)

(LABOR, COMPLICATED)

ANDROSOVA, Ye.N.; RYABTSEVA, I.T.; YAKOVLEV, I.I.

Bioelectric activity of the cerebral cortex in pregnant women  
with a pelvic presentation of the fetus. Sbor.nauch.trud.Kaf.  
akush. i gin. 1 IMI no.28155-158'61. (MIRA 16:7)  
(ELECTROENCEPHALOGRAPHY) (FETUS)

YAKOVLEV, I.I.; CHAYKOVSKAYA, A.L.; PERMSKAYA, V.A.; TITKOVA, V.S.;  
DROZDOVA, Z.A.

Characteristics of vascular reactions and contractions of the uterus in pregnant women prior to labor as a result of the use of caffeine and bromine; according to data of clinical and physiological examinations. Sbor.nauch.trud.Kaf.akush. i gin.  
1 IMI no.2:174-181'61. (MIRA 16:7)

(UTERUS, PREGNANT) (CAFFEINE—PHYSIOLOGICAL EFFECT)  
(BROMINE—PHYSIOLOGICAL EFFECT)

YAKOVLEV, I.I.; CHAYKOVSKAYA, A.L.; TITKOVA, V.S.

Pregnancy and labor in a woman who had undergone surgery for the removal of an astrocytoma from the right hemisphere of the cerebellum. Sbor. nauch. trud. Kaf. akush. i gin. 1 LMI no.2: 182-189'61.  
(MIRA 16:7)  
(PREGNANCY) (LABOR (OBSTETRICS)) (BRAIN—SURGERY)

LEBEDEVA, L.I.; ORLOV, R.S.; YAKOVLEV, I.I.

Uterine contractions and blood acetylcholine during labor in  
women with arterial hypotensive types of vascular diseases.  
Akush.i gin. no.4:33-38 '61. (MIRA 15:5)

1. Iz laboratorii interotspektivnykh uslovnykh refleksov (zav. - prof.  
E.Sh. Ayrapetyants) Instituta fiziologii imeni I.P. Pavlova  
AN SSSR (dir. - akad. V.N. Chernigovskiy), kafedry fiziologii  
(zav. - chlen-korrespondent AMN SSSR prof. A.V. Kibyakov) i  
kafedry akusherstva i ginekologii (zav. - zasluzhennyy deyatel'  
nauki prof. I.I. Yakovlev) I Leningradskogo meditsinskogo insti-  
tuta imeni akad. I.P. Pavlova.  
(CHOLINE) (HYPOTENSION) (LABOR (OBSTETRICS))

YAKOVLEV, I.I.

Nature of anomalies in labor stresses and the recommended  
obstetric measures. Akush.i gin. no.5:3-14 '61. (MIRA 15:1)

I. Iz akushersko-ginekologicheskoy kafedry (zav. - zasluzhennyy  
deyatel' nauki, doktor med.nauk prof. I.I. Yakovlev) I Leningrad-  
skogo meditsinskogo instituta imeni akad. I.P. Pavlova.  
(LABOR, COMPLICATED)

YAKOVLEV, I.I., zasl. deyatel' nauki, prof., red.; STAROVYTOV,  
I.M., prof., red.; GUTKOVSKAYA, O., red.; STEPANOVA, N.,  
tekhn. red.

[Practical handbook of gynecology] Prakticheskoe posobie po  
ginekologii. Minsk, Glavizdat M-va kul'tury BSSR, 1963.  
(MIRA 16:7)  
407 p.

(GYNECOLOGY—HANDBOOKS, MANUALS, ETC.)

LEBEDEVA, L.I.; YAKOVLEV, I.I.

Contractile activity of the uterus in women during labor with  
a flat amnion. Akush. i gin. no.1:72-76 '63. (MIRA 17:6)

1. Iz laboratorii interotseptivnykh uslovnnykh refleksov (zav,-  
prof. E.Sh. Ayrapet'yants) Instituta fiziologii imeni I.P. Pavlova  
(dir.- akademik V.N. Chernigovskiy) AN SSSR i kafedry akusherstva  
i ginekologii (zav. - zasluzhennyy deyatel' nauki prof. I.I.  
Yakovlev) I Leningradskogo meditsinskogo instituta imeni Pavlova.

ACCESSION NR: AF4041156

8/0020/64/156/004/0888/0890

AUTHOR: Nikolayev, A. V.; Ivanov, I. M./ Yakovlev, I. I.

TITLE: Phase equilibria in the  $\text{UO}_2\text{SO}_4$  -  $\text{H}_2\text{O}$  - BEDPA and  $\text{H}_2\text{O}$  -  $\text{SO}_4^{2-}$  -  $\text{H}_2\text{O}$  - BEDPA systems

SOURCE: AN SSSR. Doklady\*, v. 156, no. 4, 1964, 888-890

TOPIC TAGS: uranyl sulfate, extraction, dibutylphosphinic acid butyl etherate, phase diagram, solubility, uranyl sulfate containing system

ABSTRACT: Phase diagrams were constructed for the uranyl sulfate - water - butyl ester of dibutylphosphinic acid (BEDPA -  $\text{C}_4\text{H}_9\text{OPO}(\text{C}_4\text{H}_9)_2$ ) and sulfuric acid - water BEDPA systems which constitute the quaternary extraction system for uranium VI salts (figs. 1 and 2). The extraction can be effected only in the narrow area A. The disolvate  $\text{UO}_2\text{SO}_4 \cdot 2\text{BEDPA}$  is very stable in water; only in excess water will it break up into 2 liquid phases - an aqueous phase containing 1.88% uranyl sulfate and an organic phase with 10.2%  $\text{UO}_2\text{SO}_4$ , 16.6%  $\text{H}_2\text{O}$  and 73.2% BEDPA. BEDPA is completely miscible with  $\text{H}_2\text{SO}_4$  starting with approximately 80% acid. The binodal of the ternary system (fig. 2) is characteristic of organic systems having no chemical.

Card 1/4

ACCESSION NR: AP4041156

reaction. Orig. art. has: 3 tables and 2 figures.

ASSOCIATION: Institut neorganicheskoy khimii, Sibirskogo otdeleniya Akademii nauk  
SSSR (Institute of Inorganic Chemistry, Siberian Department Academy of Sciences  
SSSR)

SUBMITTED: 02Mar64

ENCL: (2)

SUB CODE: GC

NO REF Sov: 007

OTHER: 006

Card 2/4

ACCESSION NR: AP4041156

ENCLOSURE: 01

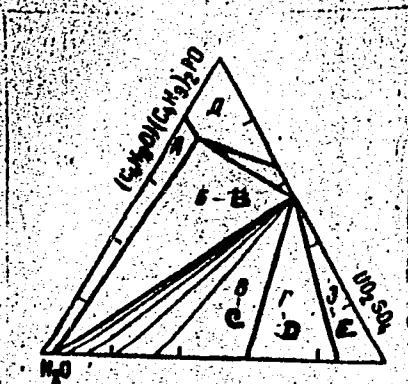


Fig. 1. Solubility diagram of the  $\text{UO}_2\text{SO}_4$  -  $\text{H}_2\text{O}$  -  $\text{C}_4\text{H}_9\text{OPO}(\text{C}_4\text{H}_9)_2$  system at 25°C.  
A - area of separation of the aqueous and organic solutions of uranyl sulfate;  
B - nonvariant area: solid solvate, organic phase aqueous solution  
C - area of equilibrium of solvate with aqueous phase;  
D - area of equilibrium of solid solvate, trihydrate and saturated aqueous solution;  
E - area of coexistence of solid solvate & saturated organic phase

Card 3/4

ACCESSION NR: AP4041156

ENCLOSURE: 02

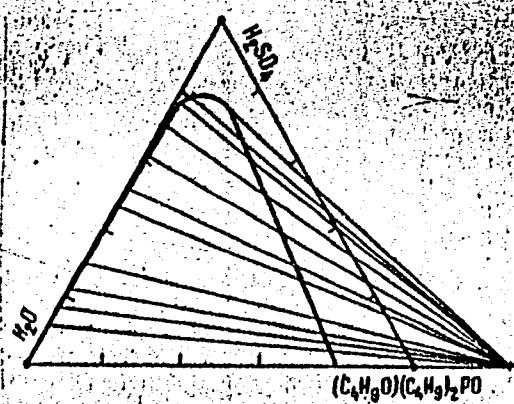


Fig. 2. Solubility diagram of the  $\text{H}_2\text{SO}_4$  -  $\text{H}_2\text{O}$  -  $\text{C}_4\text{H}_9\text{OPO}(\text{C}_4\text{H}_9)_2$  system at 25°C.

Card 4/4

NIKOLAYEV, A.V.; DYADIN, Yu.A.; YAKOVLEV, I.I.

Solubility of water and uranyl nitrate in tributyl phosphate within the  
0 - 100°C range. Dokl. AN SSSR 158 no.5:1130-1132 O '64.

(MIRA 17:10)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR. 2.  
Chlen-korrespondent AN SSSR (for Nikolayev).

KIRGINTSEV, A.N.; YAKOVLEV, I.I.

Extraction equation for ternary aqueous salt solutions. Dokl.  
AN SSSR 159 no.4:887-889 D '64 (MIRA 13:1)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN  
SSSR. Predstavлено akademikom V.I. Spitsynym.

NIKOLAYEV, A.V.; DYADIN, Yu.A.; YAKOVLEV, I.I.; DURASOV, V.B.; M.RONOV, Z.N.

Polytherms of mutual solubility in the systems water - organo-phosphorus extraction agents. Report 1. Izv. SO AN SSSR no.3  
Ser. khim. nauk no.1:27-31 '65. (MIRA 18:8)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya  
AN SSSR, Novosibirsk.

YAKOVLEV, I.I.

Structure and physiology of the smooth muscle of the pregnant uterus.  
Akush. i gin. no.2:3-9 '65. (MIRA 18:10)

1. Akushersko-ginekologicheskaya kafedra (zav. - prof. I.I.Yakovlev)  
I Leningradskogo meditsinskogo instituta imeni I.P.Pavlova.

NIKOLAYEV, A.V.; DYADIN, Yu.A.; YAKOVLEV, I.I.

Mutual solubility in the system water - nitric acid -  $(C_4H_3O)PO(C_4H_9)_2$   
at 25°. Dokl. AN SSSR 160 no.2:363-365 Ja '65.

(MIRA 18:2)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR.
2. Chlen-korrespondent AN SSSR (for Nikolayev).

NIKOLAYEV, A.V.; DYADIN, Yu.A.; YAKOVLEV, I.I.

Solubility polytherm in the ternary system  $\text{HNO}_3 - \text{H}_2\text{O} - (\text{C}_4\text{H}_9)_3\text{PO}(\text{C}_4\text{H}_9)_2$ .  
Dokl. AN SSSR 160 no.4:841-844 F '65.

(MIRA 18:2)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR.
2. Chlen-korrespondent AN SSSR (for Nikolayev).

NIKOLAYEV, A.V.; DYADIN, Yu.A.; YAKOVLEV, I.I.; DURASOV, V.B.; MIRONOVA, Z.N.

Study of the polytherm of mutual solubility in the system  
water - organophosphorus extractant. Report No.2. Izv. SO  
AN SSSR no.7 Ser. khim. nauk no.2:28-32 '65.

(MIRA 18:12)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya  
AN SSSR, Novosibirsk. 2. Chlen-korrespondent Sibirskogo  
otdeleniya AN SSSR. (for Nikolayev). Submitted June 24,  
1964.

IAKUVIN, I. A.

Tractors

Timely and proper repair of machinery. Les. khoz. 4 no. 12, 1951

Monthly List of Russian Acces-sions. Library of Congress, April 1952. UNCLASSIFIED.

PETROVSKIY, Georgiy Semenovich, polkovnik; TARATORIN, Nikolay Nikolayevich, polkovnik; YAKOVLEV, I.K., general-major tankovykh voysk, red.; KONKIN, P.I., polkovnik, red.; MURASHOVA, L.A., tekhn., red.

[Examples of methodology for tactical training of tank crews and platoons] Sbornik primerov po metodike takticheskoi podgotovki tankovogo ekipazha i vzzoda. Pod red. I.K. IAkovleva. Moskva, Voenizdat, 1963. 154 p.

(MIRA 16:7)

(Tank warfare)

UNKSOV, V.A.; BOROVIKOV, P.P.; RUNDKVIST, D.V.; PAVLOVA, I.G.;  
ALYAVDIN, V.F.; VOLOSTNYKH, G.T.; ROZINOV, M.I.; SHCHEGLOV, A.D.;  
IVANOVA, A.A.; KORMILITSYN, V.S.; SHCHEGLOV, A.D.; ARTEMOV, V.R.;  
RYTSK, Yu.Ye.; GINZBURG, A.I.; DORTMAN, N.B.; TOPORETS, S.A.;  
TRUNINA, V.Ya.; YAKOVLEV, I.K.; BOGDANOVA, L.A.; SARBEYEVA, L.M.

Problems of the geology and characteristics of the distribution  
of mineral deposits. [Trudy] VSEGEI 92:53-89 '63. (MIRA 17:4)

YAKOVLEV, I.K.

Distribution of coals at different degrees of metamorphism in the  
western margin of the Tunguska Basin. Sov.geol. 6 no.12:58-67  
D '63. (MIRA 16:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut.

YAKOVLEV, L.K.

Interaction of the system  $K_2O - Al_2O_3 - SiO_2$  on heating. Report No.13 Reaction between potassium disilicate and aluminum oxide. Izv. SO AN SSSR no.7 Ser. khim. nauk no.2:74-81 '64  
(MIRA 18sl)

1. Khimiko metallurgicheskiy institut Sibirskogo otdeleniya  
AN SSSR, Novosibirsk.

YAKOVLEV, I.L.; IGUMNOV, Ya.V.; ABRAMOV, A.A.

Centralized transportation and shipment operations. Tekst.prom.  
16 no.2:54-55 F '56. (MLRA 9:5)

1. Starshiy inzhener Glavlenkhlopproma (for Yakovlev); 2. Na-chal'nik transportno-ekspeditsionnoy bazy (for Igumnov);  
3. Nachal'nik otdela ekspeditsii bazy (for Abramov).  
(Shipment of goods)

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 110 (USSR) SOV/137-59-1-814

AUTHORS: Kunitsyn, N. M., Shamovskiy, E. Kh., Yakovlev, I. M., Soroko, L. N.

TITLE: The Design of a Wide-path Cutting Blowpipe for Flame Cleaning of Metal (Proyektirovaniye shirokozakhvatnogo rezaka dlya ognevoy zalistki metalla)

PERIODICAL: Izv. vyssh. uchebn. zavedeniy, Chernaya metallurgiya, 1958, Nr 3, pp 154-160

ABSTRACT: The authors describe the design of a slot-type head for a coke-oxygen operated cutting blowpipe for surface flame planing capable of producing a groove 100-150 mm wide. The ratio of the groove width to the width of the exit slot on the head amounts to 2-3. At a groove depth of 4-5 mm, the rate of cutting amounts to 6 m/min. The rate of cutting metal preheated to a temperature of 900-1000°C [sic!] increases to 20-21 m/min, the heating time being reduced from 8-12 to 2-4 seconds. The stability of cut and the cross section of the groove are functions of the geometry of the nozzle and of the nature and the dimensions of the hot spot. The shape of cone-and-slot type nozzles is most efficient in preventing bifurcation of the groove.

Card 1/2

*Siberian Metallurgical Inst. & Kuznetsk Metallurgical Combine*

SOV/137-59-1-814

The Design of a Wide-path Cutting Blowpipe for Flame Cleaning of Metal

Smooth transition from the throat to the slot of the blowpipe is an essential consideration in the design of the nozzle.

G. K.

Card 2/2

SOV/137-59-1-1556

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 207 (USSR)

AUTHORS: Shamovskiy, E.Kh., Yakovlev, I. M., Kaftanova, Z. K.

TITLE: Elimination of Spatter Flaws Introduced During Flame Scarfing of Metal (Udaleniye zapleskov pri ognevoy zalistke metalla)

PERIODICAL: Izv. vyssh. uchebn. zavedeniy. Chern. metallurgiya, 1958, Nr 4, pp 117-125

ABSTRACT: During flame scarfing operations, performed for the purpose of removing surface defects of metal, spatter was observed to occur along the edges of the groove; as a result, defects appeared on the surface of low-carbon steels during their subsequent rolling into sheets. It was established that the formation of spatter defects is attributable to molten metal being blown out of the groove by the oxygen jet. This condition may be eliminated by means of employing additional O<sub>2</sub> for purposes of preheating the metal, or by utilizing smaller openings for the jet of cutting O<sub>2</sub>.

S.G.

Card 1/1

SHAMOVSKIY, E.Kh.; YAKOVLEV, I.M.

Wide-range coke-oxygen cutter for flame machining and scarfing  
of cold carbon metal. Izv. vys. ucheb. zav.; chern. met. 4  
no.10:165-169 '61. (MIRA 14:11)

1. Sibirskiy metallurgicheskiy institut.  
(Metal cleaning) (Gas welding and cutting)

KOROLEV, Aleksandr Nikiforovich; POPOV, Aleksandr Ivanovich; SIZOV,  
K.P., inzh., retsenzent; YAKOVLEV, I.N., inzh., retsenzent;  
SARANTSEV, Yu.S., inzh., red.; VOROTNIKOVA, L.F., tekhn. red.

[Economics, organization, and planning of railroad car opera-  
tion]Ekonomika, organizatsiya i planirovanie vagonnogo kho-  
ziaistva. Moskva, Transzheldorizdat, 1962. 290 p.

(MIRA 15:12)

(Railroads—Rolling stock)

GUSEV, Sergey Osipovich; YAKOVLEV, Il'ya Nikiforovich; ARRAMOV, Vasiliy  
Alekseyevich; BRAYLOVSKIY, N.G., inzh., red.; BOBROVA, Ye.N.,  
tekhn.red.

[Isothermal cars] Izotermicheskie vagony. Moskva, Vses.izdatel'sko-  
poligr.ob"edinenie M-va putei soobshcheniya, 1960. 247 p.  
(MIRA 14:1)

(Refrigerator cars)

YAKOVLEV, I. N.

KAMENSKIY, I.Z.; YAKOVLEV, I.N.; DOBRUSINA, R.Ye.

Rodenticide. Patent U.S.S.R. 77,586, Dec. 31, 1949.  
(CA 47 no.19:10172 '53)

YAKOVLEV, I. N.

20108 YAKOVLEV, I. N. Materialy dlya sanitarno - prosvetitel'noy raboty po bor'be  
s kishchechnymi infektsiyami. Fel'dsher i akusherka, 1949, No. 6, s. 43-47.

SO: LETOPIS ZHURNAL STATEY, Vol. 27, Moskva, 1949.

YAKOVLEV, I.N.

Observation of the partial solar eclipse on June 30, 1954. Fiz.  
v shkole 15 no.1:61-63 Ja-F '55. (MLRA 8:2)

1. 2-ya srednyaya shkola, g. Starokonstantinov, Khmel'nitskoy obl;  
(Eclipses, Solar -1954)

YAKOVLEV, I.N. (Kiyev)

Method of studying the Joule law. Fiz. v shkole 20 no.2:49-52  
Mr-Ap '60. (MIRA 14:5)  
(Physics—Study and teaching)

YAKOVLEV, I.N. (Kiyev)

Gas-discharge counter for ionizing particles. Fiz. v  
shkole 21 no.1:56-59 Ja-F '61. (MIRA 1449)  
(Ionization chambers)

CA

10

中国科学院植物研究所 2003 年 6 月 2 日于北京

**unsaturated cyclic hydrocarbons and their derivatives.**  
**VIII. Synthesis of 1-cyclobutene-1-carboxylic acid and some of its derivatives.** N. A. Domin and I. P. Yakovlev (Leningrad State Univ.). *J. Gen. Chem. (U.S.S.R.)* **17**, 1800-013 (1947) (in Russian); cf. *C.A.* **41**, 10610.  
 After numerous trials the following procedure was evolved for the prepn. of *1-cyclobutene-1-carboxylic acid* (I): 400 g. powd. KOH under 200 cc. dry MePh was treated with 300 g. 1-bromocyclobutanecarboxylic acid in 300 cc. MePh, heated on a steam bath 0.5 hr., cooled, diluted with water, acidified with H<sub>2</sub>SO<sub>4</sub>, and the aq. layer ext'd. with Br<sub>2</sub>O. On standing, the org. solns. gave a polymer of I as an amorphous ppt. Careful removal of the solvents gave 20-5% I, m. 72° (from benzene). On standing in air or in soln. it yields an amorphous polymer. Addn. of Br to I in moist CHCl<sub>3</sub> gave *1,2-dibromo-cyclobutene-carboxylic acid*, m. 95°, b. 130°. The latter in MePh added to a boiling suspension of powd. KOH in PhMe gave a polymeric, Br-contg. product, apparently a polymer of *2-bromo-1-cyclobutene-1-carboxylic acid*; in some expts. it was possible to isolate a little *1-hydroxy-2-bromocyclobutanecarboxylic acid*, m. 120-1° (from benzene); if the reaction is run at 170-225° in high-boiling kerosene, the product is a Br-free resin and some C<sub>2</sub>H<sub>6</sub> is evolved. From 18 g. of the di-Br acid boiled with 60 g. powd. KOH in 100 cc. BuOH was obtained 9 g. *1,3-dibromo-cyclobutene-carboxylic acid*, b. 150°, d<sub>4</sub> 0.9035, d<sub>4</sub> 0.9033, n<sub>D</sub> 1.4304. If the reaction was run in Et<sub>2</sub>O, only polymers were obtained.

G. M. Kosolapoff

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001961910017-6"

YAKOVLEV, I. P.

Chem Abs

V-48 25 Jan 54

Org Chem

*3*      *3*

$\alpha$ -Cyclobutyl- $\alpha$ -methylbenzyl alcohol. T. A. Favorskaya<sup>t</sup> and I. P. Yakovlev. Akad. Nauk S.S.R. Inst. Org. Khim., Sintez Org. Spoldinenii, Sbornik 2, 113-14 (1952).— To McMgBr, from 9.2 g. Mg and 40 g. MeBr, in 200 ml. Et<sub>2</sub>O is added 60 g. phenyl cyclobutyl ketone in 100 ml. Et<sub>2</sub>O; after stirring 2-3 hrs. at room temp. the mixt. is treated with ice; the org. layer is sepd. and the aq. layer is acidified with 1:4 HCl and extd. with Et<sub>2</sub>O. The combined org. layers, after drying over Na<sub>2</sub>SO<sub>4</sub>, yield 90%  $\alpha$ -cyclobutyl- $\alpha$ -methylbenzyl alc., b.p. 100.5-1°,  $n_{D}^{20}$  1.5358, d<sub>4</sub> 1.0310. Similarly are obtained: 93.5%  $\alpha$ -cyclobutyl- $\alpha$ -ethylbenzyl alc., b.p. 127-8°,  $n_{D}^{20}$  1.5302, d<sub>4</sub> 1.0085, and  $\alpha$ -cyclobutyl- $\alpha$ -isopropylbenzyl alc., 80%, b.p. 131-3°,  $n_{D}^{20}$  1.5325, d<sub>4</sub> 1.0129. G. M. Kosolapoff

YAKOVLEV, I.-P.

Chem Obo V47

1-25-54

Organic Chemistry

3

(3) Chem

Methyl cyclobutyl ketone. T. A. Favorskaya and I. P. Yakovlev. Akad. Nauk S.S.R., Inst. Org. Khim., Sintez Org. Soedinenii, Sbornik 2, 115-16 (1952).—To 60 g. CrO<sub>3</sub> is added 30.5 ml. 25% NH<sub>4</sub>OII and made up with H<sub>2</sub>O to 300 ml. This soln. is added to 110 g. Mn(NO<sub>3</sub>)<sub>2</sub> in 300 ml. H<sub>2</sub>O, followed by 30.5 ml. 25% NH<sub>4</sub>OII. The brown soln. is filtered and the ppt., after washing with H<sub>2</sub>O is dried at 110°, then decompd. in a porcelain dish by heating with stirring (exothermic). The catalyst in the form of a powder

(40 g.) is deposited on glass wool and is placed into a tube, through which a mixt. of 1 part Et cyclobutane carboxylate with 3 parts EtOAc is passed at 10-12 ml. per hr. at 140°. Distr. of the product yields 63% methyl cyclobutyl ketone, bp 137-0°, n<sub>D</sub><sup>20</sup> 1.4339, d<sub>40</sub> 0.9093. The catalyzate contains some di(cyclobutyl ketone), while EtOAc yields some 40% MeCO. G. M. Kogolapoff

✓ 23 54

## USSR/Chemistry - Hydrocarbons

Jan 52

"Research in the Field of Tertiary Alcohols With the Cyclobutyl Radical. I. Interaction of Diisopropylcyclobutylcarbinol With Hydrochloric and Sulfuric Acids," T. A. Favorskaya, I. P. Yakovlev, Lab imeni A. Ye. Favorskly, Leningrad State U

"Zhur Obshch Khim" Vol XXII, No 1, pp 113-122

Prepd and characterized for the 1st time: diisopropylcyclobutylcarbinol (I), 1,1-disopropyl-1-cyclopentanol-2-(II), diisopropylmethylene cyclobutane (III), 1,1-di-isopropylcyclopentene-2-(IV), 1,2-diisopropyl-2-cyclopentane (V), 1,2-diisopropyl-methyler-cyclopentane (VI). Interaction of 207T23

## USSR/Chemistry - Hydrocarbons (Contd)

Jan 52

I with  $H_2SO_4$  goes in 2 directions: dehydration but no isomerization; and formation of isomeric alc II. Interaction of I with HCl goes in 3 directions, yielding II, III, and V. II is dehydrated under action of  $H_2SO_4$ , is also dehydrated under action of HCl to yield IV and 2 5-membered cyclic chlorides, one of which seems to be secondary reaction product. Established isomerization of one cycle into another in organo-Mg synthesis, by which method I is formed at same time as II. Formation of isomeric alc results from isomerization of organo-Mg complex.

YAKOVLEV, I. P.

207T23

YAKOVLEV, I. P.

"Investigations in the Field of Tertiary Alcohols with Cyclobutyl Radicals.  
II. The Interaction of Methylphenylcyclobutylcarbinol with Hydrochloric  
and Sulphuric Acids." by T. A. Favorskaya and I. P. Yakovlev (p. 122)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii), 1952, Volume 22,  
no. 1

YAKOVLEV, I. P.

USSR/Chemistry - Hydrocarbons

Feb 52

"Research in the Field of Tertiary Alcohols With  
the Cyclobutyl Radical. III. Interaction of Ethyl-  
furanic Acids," T. A. Favorshaya, I. P. Yakovlev, Lab.  
Lenin State U imeni A. A. Zhdanov Order of

"Zhur. Obshch. Khim." Vol XXII, No 2, pp 215-220

Prepd for the 1st time ethylphenylcyclobutylcarbi-  
nol and products of its dehydration and isomeriza-  
tion under action of  $H_2SO_4$  and HCl (ethylphenyl-  
methylenecyclobutane, 1-methyl-2-phenyl-2-cyclo-  
tylene, and 1-chloro-1-ethyl-2-phenylcyclo-  
pane).

USSR/Chemistry - Hydrocarbons (Contd)

Feb 52

Cites mean arithmetic values for relative dispersion  
as FCD of some alcs with cyclobutyl radical and  
their dehydration, substitution, and isomerization  
products.

209T16

FAVORKAYA, T.A.; YAKOVLEV, I.P.

Tertiary alcohols with a cyclobutyl radical. IV. Reaction of iso-propylphenylcyclobutylcarbinol with hydrochloric and sulfuric acids.  
Zhur. Obshchey Khim. 22, 1816-21 '52. (MLRA 5:11)  
(CA 47 no.14:6876 '53)

1. A. Zhdanov State Univ., Leningrad.

YAKOVLEV, I. P.

Chemical Abst.  
Vol. 43 No. 8  
Apr. 25, 1954  
Organic Chemistry

Tertiary alcohols with a cyclobutyl radical. IV. Reaction of isopropylphenylcyclobutylcarbinol with hydrochloric acid. V. A. Favorskay and I. P. Yakovlev. *J. Gen. Chem. (U.S.S.R.)* 22, 1855-8 (1952) (Engl. translation).—See *C.A.* 47, 68700. *H. L. H.*

8/30/53  
off

YAKOVLEV, T. K.

**U.S.S.R.** Catalytic synthesis of acetone and ethyl acetate. N. Synthesis of ketones from acetic acid and ethyl alcohol based. I. P. Yukovlev and N. A. Klykorskii. *Uchenye Zapiski Kiberneticheskogo Instituta Akademii Nauk SSSR*, 1954, No. 3, 1058. MeCO and MeCOEt were obtained by passing a 1:4 molar ratio mixt. of AcOH and EtOH at 400° and a rate of 8-19 ml./lit. over a catalyst. (cf. C.A. 46: 11110d). As the temp. increased from 400 to 410° the yield of MeCO dropped and the yield of MeCOEt rose. Carrying out the reaction in a stream of H increased the yield of MeCOEt greatly. A mechanism is proposed. M. Hogen

**APPROVED FOR RELEASE: 03/14/2001**

CIA-RDP86-00513R001961910017-6"

**YAKOVLEV, I. P.**

USSR/Chemistry - Catalysis

Card 1/1 Pub. 151 - 11/33

Authors : Yakovlev, I. P.

Title : Catalytic synthesis of ketones. Part 2.- Synthesis of methylbutyl ketones and methylethyl ketone

Periodical : Zhur. ob. khim. 24/6, 983-987, June 1954

Abstract : The possibility of catalytic synthesis of esters and ketones from aliphatic alcohols and acids (acetic acid and n-butyl alcohol) over CrMg catalysts is discussed. The complete reaction process is described in detail. The reaction process of catalytic synthesis of ketones from acid halides and alkyl halides (acetyl chloride and ethyl bromide) is explained. The initial stage of formation of esters and ketones from acid-alcohol mixtures was found to be analogous to the initial stage of formation of ketones from acid halides and alkyl halides. Three USSR references (1952 and 1953).

Institution : State University, Kishinev

Submitted : October 20, 1953

YAKOVLEV, I. P.

USSR/ Chemistry Catalytic synthesis

Card : 1/1 Pub. 151 - 15/35

Authors : Yakovlev, I. P., and Dorfman, Ya.

Title : Catalytic synthesis of ketones. Part 3.- Synthesis of methylethyl-, methyl- and methylisobutyl ketones

Periodical : Zhur. ob. khim. 24, Ed. 7, 1171 - 1175, July 1954

Abstract : The theoretical assumptions regarding the ketonization (conversion into ketones) of alcohol mixtures, were investigated and confirmed. A new method for the synthesis of ketones from acetic acid anhydride and alcohols (preferably ethyl, butyl and isobutyl), is described. It was established that catalytic synthesis of saturated ketones from alcohols and acid anhydrides is possible only in the presence of H. A CrMn catalyst was found most stable in the presence of H and requires no regeneration. Six USSR references. Tables.

Institution : State University, Kishinev, Mold-SSR

Submitted : October 20, 1953

Catalytic synthesis of ketones. IV. Synthesis of methyl propyl, methyl isobutyl, diisopropyl, and isopropyl butyl ketones. I. P. Yakovlev (State Univ. Kishinev). *Zhur. Obrashch. Nauk.* 25, 275-5 (1955); cf. *C.A.* 49, 12282g. Passage of 1:3 ratio of iso-PrOH and AcOH over Cr-Mn catalyst at 400°, 430°, and 460° at 13-40 ml./hr. gave mainly Me<sub>2</sub>CO along with small amounts of iso-PrAc; at 460° there also formed some MeCH<sub>2</sub>CHAc, and iso-PrAc. Similar reaction in H stream gave progressively higher yields of PrAc and iso-PrAc, reaching 1.3% and 8.2%, resp., at 460°. A 3:1 mixt. of AcOH and iso-BuOH at 450° in H over the same catalyst gave iso-PrAc, iso-BuAc, iso-Pr<sub>2</sub>CO, and iso-BuCOCHMe<sub>2</sub>, along with Me<sub>2</sub>CO. Passage of iso-BuOH over the catalyst at 460° in H gave iso-PrCHO and a low yield of iso-Pr<sub>2</sub>CO, Me<sub>2</sub>CHCOCHMe<sub>2</sub>, iso-BuCOCHMe<sub>2</sub>, and an unidentified material, b. 175-85°. Thus the ketonization scheme proposed earlier is correct, although the yields of ketones, and especially their sepn. from the mixts. that are obtained, are not too satisfactory. G. M. K.

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SOV/62-58-8-16/22

## AUTHORS:

Shuykin, N. I., Cherkashin, M. I., Yakovlev, I. P.

## TITLE:

The Hydrolysis of Dicyclopentyl on a Skeleton Nickel-Aluminium Catalyst (Gidrogeneliz ditsiklopentila na skeletnom Ni - Al - katalizatore)

## PERIODICAL:

Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk,  
1958, Nr 8, pp. 1008-1010 (USSR)

## ABSTRACT:

In the present short report the authors described their investigation of the reaction of the hydrolysis of dicyclopentyl on a skeleton nickel-aluminium catalyst at atmospheric pressure and at 200°. On these conditions the hydrolysis of only a five-membered ring with a simultaneous formation of products of the simple rupture of the C - C bonds of the five-membered ring as well as of alkyl cyclopentanes with a shortened side chain takes place. The scheme of the mechanism of the dicyclopentyl hydrolysis was devised and suggested by the authors. There are 1 table and 8 references, 6 of which are Soviet.

Card 1/2

The Hydrolysis of Dicyclopentyl on a Skeleton Nickel-Aluminium Catalyst SOV/62-58-8-16/22

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii  
nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskogo,  
AS USSR)

SUBMITTED: March 5, 1958

Card 2/2

YAKOVLEV, I.P.; POPA, D.P.

Catalytic synthesis of ketones. Part 5: Synthesis of methyl phenyl,  
ethyl phenyl, methyl n-propyl, and di-n-propyl ketones. Zhur. ob.  
khim. 28 no.9:2475-2478 S '58. (MIRA 11:11)

1. Kishinevskiy gosudarstvennyy universitet.  
(Ketone)

5 (3)

AUTHORS: Freydlin, L. Kh., Balandin, A. A., SOV/62-59-9-20/40  
Zhukova, I. F., Yakovlev, I. P.

TITLE: Investigation of the Selective Effect of Catalysts. Communication 3. Hydration of Isoprene on a Skeleton Nickel Catalyst

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 9, pp 1640 - 1645 (USSR)

ABSTRACT: The hydration of isoprene on a skeleton nickel catalyst was investigated without (Fig 1) and with the addition of pyridine (Fig 2), and under pressure. The step-by-step hydration of the isoprene was established by determining the diene content in the catalyst before and after the consumption of 1 mol of hydrogen. After consumption of 1 mol of H no diene could be detected in the catalyst, which confirms the stepwise hydration. The diene was determined according to B. N. Afanas'yev (Ref 6) or A. Baeyer (Ref 7). The authors found that the step-by-step hydration occurs as well with as without pyridine and that at experiments with small quantities of pyridine the reaction proceeds only to the formation of monoolefines. The influence of the quantity pyridine/catalyst surface and the influence isoprene/catalyst surface (Tables 3,4) was investigated concerning Ni + pyridine

Card 1/2

Investigation of the Selective Effect of Catalysts.  
Communication 3. Hydration of Isoprene on a Skeleton  
Nickel Catalyst

SOV/62-59-9-20/40

and found that an excess of pyridine hinders the isoprene hydration. The analysis of the reaction products of the Ni + pyridine experiment was carried out with the Raman spectrum. The two isomer substances 2-methylbutane-1, and 2-methylbutane-2 were present in the catalyzate. At variations of the pressure the selective effect of pyridine remained up to a pressure of 80 atm. Quinoline has the same effect as pyridine. There are 2 figures, 5 tables, and 9 references, 6 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskogo of the Academy of Sciences, USSR)

SUBMITTED: December 20, 1957

Card 2/2

53400  
53200  
AUTHOR:  
Yakovlev, I. P.

80715  
S/079/60/030/05/62/074  
B005/B126

TITLE:  
Catalytic Synthesis of Aldehydes and Ketones. VII. Synthesis  
of Acetaldehyde From Acetic Acid and Formaldehyde

PERIODICAL:  
Zhurnal obshchey khimii, 1960, Vol. 30, No. 5, pp. 1694-1697

TEXT: The author examined the dependance of the yield of acetaldehyde on the temperature of the reaction between acetic acid and formaldehyde in the presence of a chromium-copper catalyst; the kinetics of this catalytic reaction were also investigated. The reaction between acetic acid and formaldehyde takes place in the temperature range 180-380°, forming acetaldehyde and formic acid. At higher temperatures the formic acid reacts with the acetic acid and forms acetaldehyde, water, and CO<sub>2</sub>. Besides, the formaldehyde decomposes at higher temperatures into hydrogen and CO. A table shows the products that are produced by the reaction of 95% acetic acid with the equimolar quantity of a 34.1% formaldehyde solution at 0° and in the temperature range 175-425°. The author examined the thermal decomposition of single

Card 1/2

1716

Catalytic Synthesis of Aldehydes and Ketones.  
VII. Synthesis of Acetaldehyde From Acetic  
Acid and Formaldehyde

S/079/60/030/05/62/074  
B005/B126

components on the chromium-copper catalyst (acetic acid, acetaldehyde, formaldehyde, acetone, formic acid). The results are given. A diagram shows the changes in the quantities of the products of the reaction between acetic acid and formaldehyde, depending on the temperature. The changes in quantity of the following reaction products are given: total acid content, total quantity of carbonyl compounds,  $\text{HCOOH}$ ,  $\text{CH}_3\text{COOH}$ ,  $\text{CH}_2\text{O}$ ,  $\text{CH}_3\text{CHO}$ . The experiments

carried out showed that the production of acetaldehyde from acetic acid and formaldehyde is possible, in principle. The results confirmed a mechanism previously proposed, according to which acids and aldehydes and mixtures of both change into other aldehydes and ketones. The method is described in the experimental part. The production of the catalyst and the determination of acetaldehyde and formic acid are also described. The analysis of the gaseous reaction products was carried out in a VTI apparatus. There are 1 figure, 1 table, and 3 Soviet references.

ASSOCIATION: Kostromskoy tekstil'nyy institut (Kostroma Textile Institute)

SUBMITTED: June 15, 1959

Card 2/2